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ABSTRACT

Activities and outcomes of a project to assist South Burlington High School (Vermont) special education students in mastering state-mandated basic competencies are described. The Interactive Model for Professional Action and Change for Teachers (IMPACT), which was conducted in cooperation with the University of Vermont, was designed to provide teacher support services and staff development activities, to develop monitoring systems to assess student competencies, and to disseminate improved special education and teacher support service systems to other Vermont schools. An overview is presented of the monitoring system, teacher support services (workshops, courses, team teaching), department heads' reactions to team teaching, and dissemination activities. In addition, a 1-year longitudinal study of 87 special education students and their peers is summarized, including their performance on standardized tests, grade point averages, absentee and dropout rates, and overall basic competencies performance. Efforts to measure the effects of the program on teachers through 44 observations of six teachers are also discussed. Lastly, information is provided on teachers interviewed, interview procedures, and results of evaluating training delivery modes. (SEW)

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Child Service Demonstration Center:
Interactive Model for Professional Action and Change for Teachers

IMPACT: A SUMMARY REPORT

EC

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ABSTRACT

The major focus of IMPACT was to assist South Burlington High School special education students in mastering the State mandated Basic Competencies. This was accomplished through the following collaboratively designed programs by project staff, school administrators, department chairpeople, teachers and consulting teachers to meet real and existing district needs:

a) teacher support services,

b) curriculum and materials,

c) streamlined monitoring system for the Basic Competencies,

d) staff development activities,

e) system modifications.

Each year the focus of the project shifted, while involving the same personnel in collaborative decision making. The first year was focused on planning; the second on implementing the monitoring system, team teaching, workshops and courses; the third on disseminating the programs to other school districts in Vermont, two national organizations (Council for Exceptional Children, New York, April 1981 and Houston April 1982; American Association of School Administrators, New Orleans, February 1982) and an article entitled "IMPACT - Interactive Model for Professional Action and Change for Teachers" published in The Journal of Staff Development, November 1981.

Since IMPACT's inception, all South Burlington High School students in the graduating class of 1982 have mastered all of their basic competencies, excluding two students on multi-year plans. As of the date of this report, there are four team-taught English classes, one team-taught math class, and one team-taught social studies class. Of the teachers interviewed who participated in the courses or workshops, 70% of those interviewed were applying the concepts in their classroom. Evaluation designs include RAMOS, (Reading and Mathematics Observation System - Robert & Kathryn Calfee, Stanford University, 1976), LoU (Levels of Use - Concerns-Based Adoption Model Level of Use (LoU) Interview format (Loucks, Newlove & Hall, 1975), and rate charts for the basic competencies.

IMPACT: A SUMMARY REPORT

The Interactive Model for Professional Action and Change for Teachers (IMPACT) has been a collaborative project of South Burlington High School and the University of Vermont. IMPACT, a secondary Child Service demonstration Center, was funded by the U. S. Department of Education from September 1, 1979 to August 30, 1982. This paper is submitted as a summary report of the project. It includes an evaluation of student change and teacher training, reactions of department chairpeople, and recommendations to the district for future activities which can be continued without the aid of IMPACT's federal funding.

The major goals of Project IMPACT have been:

1. to assist school administrators in the development of more efficient systems of monitoring student progress in mastering Vermont Basic Competencies;
2. to design with Department Chairpersons, teacher support services (courses, workshops and daily consultation) offered by consulting teachers, which were necessary for serving students not achieving Basic Competencies in the regular classroom;
3. to disseminate improved educational systems for providing special education and teacher support services to other schools in Vermont.

Project staff, school administrators, consulting teachers and school personnel cooperatively designed the programs by which these goals have been realized. All of the decisions which were made by

the appropriate personnel have been oriented to either student, teacher, or school district needs and concerns. The focus of these decisions has been to assist South Burlington High School special education students in mastering the State-mandated Basic Competencies.

Monitoring Student Progress

In order to assist school administrators in the development of more efficient systems for monitoring basic competencies a secretarial position was funded. This important position has made it possible to maintain a continually updated central record keeping system which has been streamlined to meet individual and department needs. The system uses two cards. One card is maintained by each academic department for a group of students. The other card is color coded by year of graduation and is maintained by the secretary as an individual master record card for each student. The department cards are sent to the secretary to have that information transferred to the individual student record and the computer. This system has proved highly effective in maintaining accurate information on individual students' basic competency test results.

By providing accurate information on individual students basic competency test results, this system has had a clear effect on the number of students achieving mastery of all basic competencies. One hundred percent of the senior class, aside from students who have dropped out of school, have achieved mastery of all the basic competencies. Current information on the Junior class indicates that one hundred percent of the

class can achieve mastery of the basic competencies by the time they graduate. Those students on Multi-Year Plans or who drop out of school are not considered as part of the total number of students in each class.

Teacher Support Services.

The results on basic competency tests were used to help identify the district's inservice needs, as well as ideas and concerns expressed by department chairpeople, administrators, consulting teachers, teachers and project staff. Three levels of inservice teacher training were developed: courses, workshops and consultation in the form of team teaching designed to improve instruction for students with handicapping conditions.

Workshops were arranged by the consulting teachers in response to teacher identification of basic competencies most difficult for students to master. Two different concepts were employed: 1) teaming consulting teachers and exemplary teachers from the district, and 2) hiring people with expertise in different skill areas to conduct the workshops. The focus of the workshops was the development of teaching strategies and curriculum materials to increase the probability that low performing students would master Math #20 (finds quotient), and several of the writing basic competencies: Writing #2 (spells words correctly), #7 (writes a business letter), and #8 (writes a page of organized material.)

Courses were offered for graduate credit by the consulting teachers through the University of Vermont, College of Education & Social Services. The course offerings were in response to the generalized needs of teachers and included teachers from several school districts. Content focused on

individualized instruction, curriculum development, cooperative learning, learning strategies, direct instruction, and behavior management. Each three credit course required 45 hours of meeting time and 90 hours of classroom-based practicum.

Consultation in the form of team teaching between regular and special educators was the most intensive level of support services to teachers. Certain basic competencies had been delegated to content area teachers as part of the new accountability system. While the content area teachers were willing to assume the responsibility for teaching certain basic competencies, they needed specific strategies to increase the likelihood that low performing students would master these competencies in the regular classroom. Through the use of cooperative weekly planning, team teaching and shared evaluation, the special and regular educators:

1. built ongoing working relationships;
2. developed curriculum sequences;
3. implemented teaching strategies in the classroom.

The introduction of cooperative groups as a method of organizing students for learning skills (ex: time management, note taking, listening skills, SQ3R: survey, question, recite, review) demonstrated that students could be taught how to learn, as well as what to learn, in a teamed situation between a regular and special educator.

Teaming of special and regular educators evolved as an effective method of broadening the repetoire of the content teacher, servicing the handicapped population and increasing the mastery level of S.B.H.S. students on the State-mandated basic competencies. Currently there are

four team-taught English classes, one team-taught math class, and one team-taught social studies class.

There has been an increase in the number of students achieving mastery on certain basic competencies since the introduction of the workshops, courses and team teaching.

PERCENT OF SPECIAL EDUCATION STUDENTS ACHIEVING MASTERY:

Basic Competency #	before introduction of inservice training	after introduction of inservice training
Math 20	43	87
Reading 4	3.7	83
Reading 7	0	83
Writing 2	0	87
Writing 7	3.7	84

Department Chairpersons Reactions to Team Teaching.

Department chairs played an important role in accomplishing the goals of the grant. Aside from the critical developmental work which was conducted collaboratively with them, they have also made decisions for the follow-up activities which will occur in the next school year. According to Mr. Darling, the English department chairperson, the team-taught classes will be continued next year with pre and post assessing in spelling, writing and reading. There will be two instead of four team-taught classes. Mr. Darling feels that the team-taught classes allowed a teacher to spend more time with an individual student on an individual task and provided the teacher with the option of structuring a learning environment in which a

student is exposed to both independent and whole class activities. He also feels that the collaborative planning time is essential for the success of the teaming. Other positive aspects of the teaming in English classes are that it creates a situation in which organization of the classes becomes easier, and the student attitude is good.

Mr. Frattini, the math department chairperson, feels that the teaming is good for the kids with handicapping conditions and that it should be continued next year, providing that time for collaborative planning is built into the schedule. The teaming in the math department allowed more one-on-one instruction to occur in the classroom, and helped to reduce the stress level of the teacher since there was more than one person in the classroom.

The social studies department chairperson, Mr. Heller, feels that teaming is a must for the low level students. The teaming shows that kids can learn, and having a regular and special educator in the classroom together works, instead of the special educator providing assistance in other ways without "being there." Mr. Heller would like the teaming to continue and would like to expand its scope.

As a form of consultation, the teaming of regular and special educators clearly provides opportunities for teachers to incorporate new learning materials and new methods into their teaching. The teaming was designed to meet current teacher and student needs. Designing programs to meet existing teacher and student needs is a model of staff development named the "Concerns-Based Adoption Model" (CBAM), developed by Gene Hall, Center for Teacher Education, University of Texas: Austin.

Dissemination

The third goal of the grant was to disseminate improved educational systems for providing special education and teacher support services to other schools in Vermont. Since being funded, IMPACT staff has conducted 23 different dissemination activities, received 35 visitors, and published an article in the National Staff Development Council's Journal of Staff Development in November 1981. Most of our dissemination efforts have been focused within the state. However, IMPACT staff have made three presentations to national audiences: Council for Exceptional Children (CEC), in New York (April 1981); American Association of School Administrators, in New Orleans (February 1982); and CEC in Houston (April 1982).

Dissemination efforts have focused on providing information and support that would allow other teachers and schools to adopt IMPACT's monitoring system and teacher support services to their own classroom, department and/or school needs. Some dissemination vehicles were:

1. a tape/slide presentation entitled the "BC BLUES" was shown to various organizations, groups of administrators and teachers;
2. a pamphlet describing our project was distributed at the above meetings, as well as mailed to every secondary school in Vermont;
3. those districts, teachers and administrators who were interested in finding out more about the project were then brought to the high school for the purposes of on-site visits into classrooms, and meetings with IMPACT staff for

further information on the components of the project. The visitor was asked to decide which components were of interest and could be adapted in their district.

Once the decision was made as to which components of the project were to be adapted, IMPACT staff collaboratively planned the initial introduction and follow-up activities with the interested district administrators. This dissemination took on several forms, from a single presentation as a guest lecturer in a course, to continued consultation with districts to assist them in implementing our project's components to meet the needs in their district. IMPACT staff have been more heavily involved in these dissemination activities during the third year of the project when they developed an ongoing relationship with two separate school districts in Vermont for the purpose of staff development.

Review.

During the first year of IMPACT, project staff focused on the collaborative designing of programs to meet district needs and project goals. The focus of the second year was to implement the monitoring system, teacher support services and to begin to collect data generated by these programs. Implementation and maintenance of the monitoring system and teacher support services continued into the third year of IMPACT. However, the major focus the third year was dissemination to other districts and organizations, as well as the collection of data to be used in the evaluation of IMPACT.

Evaluation consultants Bud Meyers and Joan Butrum assisted IMPACT staff in designing the means by which to collect information and evaluate IMPACT's effects. Some questions were raised:

1. What effect does direct instruction and team teaching through the Consulting Teacher Model have on special education student's mastery of certain basic competencies?
2. Are gains in learning basic competencies due to special instruction or normal maturation?
3. Are there other effects of direct instruction in test scores, grade point averages, lower absentee rates and lower dropout rates between caseload students and their peers?
4. Does team teaching effect teacher style?
5. Which is the most effective delivery mode of teacher support services: single presentations, workshops, formal courses, or team teaching?

EVALUATION

Introduction

The report which follows summarizes a longitutional study of 87 special education students and their peers from the fall of 1979 through December 1981. Briefly, the findings are as follows:

1. Given direct instruction on certain target competencies, and monitoring of all competencies, the caseload group of special education students makes significant progress on each competency resulting in complete mastery of the competencies by the spring semester of the senior year. (See Figures 1 through 6, pages 29, 30 and 31.)
2. When compared with a group of students who are most like the caseload students (have similar standard test scores and similar grade point averages), caseload students master the basic competencies at a significantly faster rate than do their peers. (See Figures 1 through 6, pages 29, 30 & 31.)
3. There are gains in average standardized test scores of caseload students, but these gains are not significantly greater than their peers.
4. There are gains in average grade points among caseload students, these are likewise not significantly higher than those of their peers. (See Figure 7, page 32.)
5. Caseload students are absent from school at an average rate of four to six days less than their peers. (See Figure 8, page 32.)

6. Caseload students drop out of school (that is, leave school for reasons not connected to health or transfer) at a significantly lower rate than their peers. (See Figure 9, page 33.)
7. Finally, all students gain in mastery of the basic competencies over the three year period of the inservice and monitoring program. Since all students had the benefit from these two areas of intervention, we can only speculate whether the caseload students might have appeared to make greater gains if the general population of the school had been denied such intervention. (See Figure 10, page 33.)

Caseload Population: Before providing more specific detail about relative student gains it is important to understand the characteristics that are common among students who were identified as caseload students and those of their peers.

Generally speaking, students are eligible for special services if their standardized test results are 2 years below grade level, they are experiencing 50% or lower learning rate with the Basic Competencies, and they are recommended for special services by a teacher. (See South Burlington School District's Special Education Services Procedures Handbook, Nov. 1981 for further clarification.)

Other characteristics that were measured for the caseload population included the following:

1) Sex
2) TASK scores at the freshman year (in actual percentile)
3) Average number of absences in the Freshman year
4) Percent of competencies mastered in the Freshman year
5) Average grade point at the end of the Freshman year

Peer group students: The search for a group of peers who would be most like the caseload students for purposes of comparison proceeded along the following steps.

First, students were sought at random who were most like the caseload students on the dimension of general school performance (grade point average.) Second, from this group of students were selected those who were most like their caseload peers on the dimension of standardized test scores in Math and English.

Finally, as a third step, students selected in steps 1 and 2 were compared as to sex. The caseload population is obviously better balanced by sex, but since sex seems to have little impact on rate of achievement on basic competencies, it was decided to ignore this difference between the two populations.

The following table indicates the comparison between the caseload and peer groups on each characteristic considered important to the study.

Table 1

	Caseload (N=87)**	Peer group (N=92)**
Sex:		
Male	56%	64%
Female	44%	36%
Average number of absences in the freshman year	9.9 days	14.6 days
Percent mastery of competencies mastered by the freshman year	37%	31%
*TASK Scores:		
English	46th percentile	50th percentile
Mathematics	25th percentile	29th percentile
Average GPA	1.75	1.43

* National percentiles
** Fall, 1979

Results

Basic Competencies:

1. Rate of progress on the target competencies:

From an initial assessment on basic competencies which identified certain competencies that had low rates of mastery, the following competencies were selected for special attention for instruction:

Reading 4: Reads, uses informational material.

Reading 7: Finds main idea and supporting details.

Writing 7: Writes a business letter.

Writing 2: Spells commonly misspelled words correctly

Math 20: Finds quotient

The caseload students made significant progress on the target competencies during the years 1979 through 1981. (See Figure 1, page 29.)

2. Comparison of caseload and peer group:

The most striking aspect about each of the graphs (Figures 2-6, pages 29, 30 and 31) is that caseload students experienced a large (and statistically significant) gain relative to the peer group during the second year of the project. As might be expected, these gains diminish by the third year of the project since all students are approaching mastery. In the case of two target competencies, Reading 4 and Reading 7, the caseload and peer groups are about even after three years of the project. This fact, we believe, is largely due to increased attention given to all students in the area of reading during the team teaching processes during the 1980-81 school year. In any case, the significant gap between the caseload and peer group during the second year of the project indicates that the direct instruction for caseload students probably had the desired impact on learning.

Standardized Test Scores: As indicated in the summary findings, caseload students do gain in average standardized test scores. While gains for both caseload and peer groups are statistically significant they are not large gains. It may be that the Stanford TASK is an inappropriate test. Almost all standardized tests are designed for the average student. However, since both caseload and peer groups are performing below average on other measures their scores may not be reliable indicators of their achievement. The TASK may not be an appropriate test to reflect achievement on the South Burlington High School curriculum. Test makers ordinarily do not have any particular curriculum in mind when a test is constructed. National percentiles are, therefore, somewhat misleading since some schools may design their curricula in closer conformity to test items than do other schools. It is an issue beyond the scope of the Model Child Demonstration Project, but we suggest that the Guidance Department be consulted to determine whether the TASK or some other test might be an appropriate standardized measure.

In any case, it appears that gains made in basic competency achievement do not substantially carry over to performance on the TASK standardized test of achievement.

Grade Point Average: Like standardized test scores, cumulative grade point averages do not reflect gains that are as great as those achieved in basic competencies. While both groups of students, the caseload and peer groups made significant gains in their cumulative grade point averages over the three year period, these gains are not as large for either the caseload or peer groups and are probably due to normal progress.

Figure 7 (page 32), indicates the relative gains in grade point averages made by both caseload and peer groups.

Absentee rates: In comparing absentee rates of both caseload and peer groups there are differences in favor of the caseload students, but these differences are not statistically significant. Figure 8 (page 32) indicates the relative absentee rates for each group during the three years of the Model Child Demonstration Project. Both groups are subject to wide ranges of absenteeism with some students being absent about as little as two or three days, while other students are absent as many as 40 or more days.

The most interesting fact related to absentee rates is that they seem most related to changes in grades and grade point average rather than basic competency performance. Basic competency performance is relatively unaffected by absenteeism. Perhaps this is because instruction for basic competencies is more individualized. However, as the days absent from school increase, the grade point average typically decreases.

Drop-out ratio: As we reported in February 1982, the caseload population drop-out (that is, withdrawn for reasons related to school performance) was at a rate of about 4 percent during the years 1979-82. At the same time, their peers experienced a drop-out rate of nearly 13 percent. (See Figure 9, page 33.)

Overall Performance of the Basic Competencies

All students at South Burlington High School gained in mastery of the basic competencies over the period of years from 1979 through 1981. Taken as a total population, it is not possible to say whether increases in mastery were due in whole or in part to the inservice monitoring system set up by the project. It is likely that at least some of the gains made by students are due to normal maturation, retesting of competencies, and test error. However, it is also true that the gains made from year to year by each class of students are substantial, could not have occurred by chance alone, and probably could not have occurred without some intervention.

Since all students: 1) caseload, 2) their peers (as formally defined for this study), and 3) the non-handicapped population are expected to achieve total mastery of all basic competencies by graduation, it is appropriate to compare the rate of achievement of these three groups. (See Figure 10, page 33.)

Summary

The question for evaluation of student progress as a result of the Model Child Demonstration project was whether or not caseload students and other students would achieve the basic competencies at a faster, more efficient rate than would have been the case had the project never existed. The evidence cited in the foregoing section strongly suggests that the project made a positive, significant and important impact upon student gains in achievement of target basic competencies. The evidence also suggests that students in the caseload population come to school more often, drop out less frequently, and finally achieve mastery of their basic competencies. It also supports the claim that the institution of inservice education in instructional design and a monitoring system positively impacts upon the rate of achievement of basic competencies by all students.

The evaluation did not, however, identify relationships between achievement on the basic competencies and achievement as measured by standardized tests or grade point average. This may raise questions for further study concerning the relationship of the basic competencies to other parts of the school curriculum and the appropriateness of currently used standardized tests.

Teacher Effects

Effort by the people associated with the Model Child Demonstration Center was directed both at helping students to learn the basic competencies and at teachers to help them teach the BC's in more effective ways. Effects of inservice and consultation on teaching styles and strategies are harder to measure than student outcomes, but probably no less important than the performance of individual students. A teacher affects student learning for thousands of students over a period of years.

In an effort to measure the effects of the program on teachers, it was decided to directly observe participating teachers during the years that the project was in operation, 1980 through 1982. The evaluation question chosen for this aspect of the project was: Do teachers' and students' behaviors change over time in ways that might be related to teacher inservice and consultation? Through team teaching and individualization of their classes, teachers might be expected to:

1) lecture less
2) be more available to individual students
3) assume a greater variety of teaching roles
4) move about more freely in the classroom
5) respond more immediately to individual students
6) give more positive feedback to students

Students, in turn, might be expected to attend more to classroom tasks and have less social interaction during instruction (unless social interaction was a goal of instruction.)

Design

A total of 44 observations were made on six teachers who had volunteered to be observed and to participate in this aspect of the Model Child Demonstration program. Eight teacher and student behaviors were chosen for analysis. These behaviors included:

1) What roles do teachers play in classrooms?

   Are they predominately:

   a) preventing undesirable behavior

   b) providing advise and feedback while students work independently

   c) lecturing

   d) other

2) To what extent are teachers available to all students in class?

3) What types of student/teacher interaction are most likely to occur? Are these:

   a) discussions led by teacher

   b) giving help to individual students

4) How mobile are teachers? Do they:

   a) move freely about the room

   b) stay in one place

5) What type of feedback do teachers tend to give students?

   Is it:

   a) given verbally and immediately

   b) tangible - (food, stars, etc.)

   c) no feedback

6) Is the type of feedback given generally positive or negative?

7) How attentive are students in class? (on task)

   a) highly attentive

   b) moderately attentive

   c) low amount of attention

8) How much social interaction occurs in class? (off task)

   a) high amount

   b) moderate amount

   c) low amount

The method for observing teachers chosen for the project was R.A.M.O.S., the Reading and Mathematics Observation System developed by Robert and Kathryn Calfee at Stanford University in 1976. RAMOS is a system that counts the number of teacher and student actions during each class period that correspond to the questions raised earlier about roles, availability, etc.

Project staff were particularly interested in learning whether the strategy of team teaching produced the desired effects in classrooms where it was implemented. In order to demonstrate these effects, three classrooms without team teaching were compared with three classrooms with team teaching.

Results

Classrooms utilizing team teaching demonstrated the following effects:

1) A greater diversity of teacher roles during the average class period, both prior to team teaching and in comparison with other classrooms.
2) A greater amount of availability by adults to students.
3) A greater variety of interaction between students and teachers.
4) Greater mobility of adults in the classroom.
5) More immediate feedback given to students
6) About the same amount of positive feedback.
7) Slightly more students on task behavior.
8) Slightly less student social interaction.

The figure on the next page summarizes these trends.

TEACHER/STUDENT ACTIONS: Average Number of Occurrences by Team and Non-Team Classrooms

	Roles[1]	Availa-bility[2]	Inter-action[3]	Mobility[4]	Type of teacher feedback[5]	On Task[6]	Off Task[7]
Team Classrooms (N=3)	H	H	H	H	H	H	L
Non Team Classrooms (N=3)	L	M	L	L	M	M	L

Keys:

[1]Roles
- H = High number of roles (5-6 roles)
- M = Moderate number of roles (3-4)
- L = Low number of roles (1-2)

[2]Availability:
- H = Available to many individual students (15-25)
- M = Available to a moderate number of students (5-14)
- L = Available to a low number of students (1-4)

[3]Interaction:
- H = Giving help to a large number of individual students (8-20)
- L = Lecturing to whole class

[4]Mobility:
- H = Moves about freely for most of class period
- L = Stationary for most of the class

[5]Feedback:
- H = High frequency of positive feedback (30 or more)
- M = Moderate frequency of positive feedback (10-30)
- L = Low frequency of positive feedback (less than 10)

[6]On task:
- H = High frequency of students on task (80-90%)
- M = Moderate frequency of students on task (50-80%)
- L = Low frequency of students on task (less than 50%)

[7]Off task:
- H = High frequency of students off task (80-90%)
- M = Moderate frequency of students off task (50-80%)
- L = Low frequency of students off task (less than 50%)

Summary:

This observation system was mainly used to document the facts that would seem obvious, namely that when two or more skilled adults are team teaching in classrooms, teacher and student interaction and student behaviors improve.

Teacher Support Services

Project IMPACT staff members provided training in five classroom organization and instructional techniques. These classroom organization and instructional techniques included: 1) cooperative learning groups, 2) teaching/learning procedures (ex. Math 20), and 3) study skills. Training was provided to classroom teachers and school administrators using four primary delivery modes: 1) a single 2½ hour presentation, 2) week-long workshops, 3) formal courses meeting once a week for 15 weeks during the regular school year, and 4) team teaching. In order to determine the most effective delivery mode, a sample of classroom teachers who received training were interviewed to determine their use of the classroom organizational and instructional techniques in their teaching routines. The remainder of this section describes the sample of teachers interviewed, interview procedures, data analysis, and results related to the evaluation of training delivery modes in promoting the use of the classroom organization and instructional techniques. At the time of this report, data was still being collected on the effectiveness of team teaching as a delivery mode.

Sample of Teachers Interviewed

Training was provided to interested classroom teachers and school administrators in six school districts in Vermont during the grant period. In December, 1981, the IMPACT staff estimated the numbers of teachers who had attended training programs during the grant period and then reconstructed lists of invididuals who participated in each training program completed at least one month earlier. In selecting the sample to be included, it was necessary to restrict data collection to training sites near the

project's home base. Table A presents data concerning the potential trainee population available for inclusion in the evaluation.

Table A
Potential Trainee Population

Training Delivery Mode	Near Project and Identified		Near Project but not Identified		Too Distant		Total Number of Participants	
	N	%	N	%	N	%	N	%
Single presentation	9		53		30		92	67.65
One week workshop	12		18		0		30	20.06
Semester course	14		0		0		14	10.29
Total	35	25.74	71	52.21	30	22.05	136	100.00

In ramdomly selecting the sample of trainees to be interviewed, three additional selection criteria were established. First, the trainee must be currently assigned to classroom teaching positions as their primary responsibility. The second criteria stipulated that no classroom teacher should be interviewed on more than one of the classroom organization or instruction techniques. The final criteria required that the potential interviewee should have gathered most of his/her information on the particular classroom organization or instructional technique from a particular project training session and not from their interactions with project or other individuals. Table B presents the data concerning the actual sample selection.

Table B
Sample Selection Process

Training Delivery Mode	Near Project and Identified		Eliminated by Criteria		Eligible[1] for Interview		Selected[2] for Interview	
	N	%	N	%	N	%	N	%
Single presentation	9	25.71	1[3]	14.28	8	28.75	4	50.00
One Week Workshop	12	34.29	3[4]	42.86	9	32.14	5	55.55
Semester Course	14	40.00	3[5]	42.86	11	39.29	11	100.00
Total	35	100.00	7	20.00	28	80.00	20	71.43

1 This column represents those trainees who were identified and assigned to schools near the project's home base minus those trainees eliminated.

2 Percents reported in this column are based on the percentage of trainees eligible for interviews who were actually interviewed.

3 One training participant had interacted with other non-project individuals frequently on training-related content and therefore was eliminated.

4 One individual was dropped because the other two represent eliminations of double counts because they had attended other training programs.

5 One individual was on leave during the interview period, the other individual was assigned to a full-time administrator position.

As presented in the previous table, approximately half of the interview-eligible participants in single presentations or workshops were interviewed. All of these participants (N=9) were employed in the project's home school district. All interview eligible trainees enrolled in the course were interviewed — five were from a neighboring school district, the remaining six were from the project's home school

district. All of the interview sample trainees had received training in both the cooperative learning group or teaching/learning procedures and were therefore allowed to discuss either in their interviews.

Interview Procedures

The interviews were conducted during the late spring of 1982, the project's final year. Interviews were conducted by four employees of the project's home school district who were familiar with the project but had not participated in the delivery or training.

The interviews were provided with a list of names to contact and interview during a six week period. Advance notice concerning the contact was sent to the selected training participants to alert them to the purpose and importance of the interviews.

The interviews were conducted in the training participant's home school using the Concerns-Based Adoption Model Level of Use (LoU) Interview format (Loucks, Newlove, and Hall, 1975.) This focused interview system collects systematic information on the use of "innovations" and will therefore provide the project with data on the effectiveness of the three training delivery modes in promoting teacher use of the classroom organization and instruction techniques.

The interviews typically required 15 to 30 minutes to complete. All interviews were tape recorded and then replayed by the interviewer at a later date for scoring purposes. The LoU rating protocol grades the interviewee's overall use of the "innovation" on an eight-part scale, reflecting eight hierarchial levels of use. Each interviewer assigned an overall rating to the trainee's use. These ratings

were additionally confirmed by one of the project's external evaluators.

Data Analysis and Results

The overall LoU ratings were aggregated for the three training delivery modes and summarized in the following table.

Table C
LoU Ratings

Teaching Delivery Mode	Levels of Use													
	Non Use		Orientation		Preparation		Mechanical Use		Routine		Refinements		Integration		Renewal	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Single Presentations (n=4)	3	75	1	25	0	-	0	-	0	-	0	-	0	-	0	-
Workshop (n=5)	0	-	0	-	0	-	4	80	1	20	0	-	0	-	0	-
Course (n=11)	1	9	1	9	0	-	1	9	3	27	5	46	0	-	0	-
Overall (n=20)	4	20	2	10	0	-	5	25	4	20	5	25	0	-	0	-

As indicated in the above table, classroom teachers who participated in one-shot training sessions did not actually implement the classroom organization and instruction techniques. The workshop and course delivery modes, on the other hand, were more effective in promoting actual classroom implementation of the training content. In addition, unlike the workshop participants, some of the course participants were able to move into higher, more competent levels of use.

Discussion

These findings suggest that the one-shot delivery mode is not effective in promoting classroom use of training content. Both the summer week-long workshop and regular year course delivery modes were effective in facilitating actual classroom implementation of the training content. The course format also produced higher levels of use. These results are somewhat unfounded, however, in that the course format provided opportunities for teachers participating in the training to try techniques in their own classrooms and then discuss these attempts with the trainers. The summer workshop obviously did not permit this type of feedback. This may suggest that both the workshop and course delivery modes may be equally effective if try-out and feedback opportunities were provided.

Recommendations

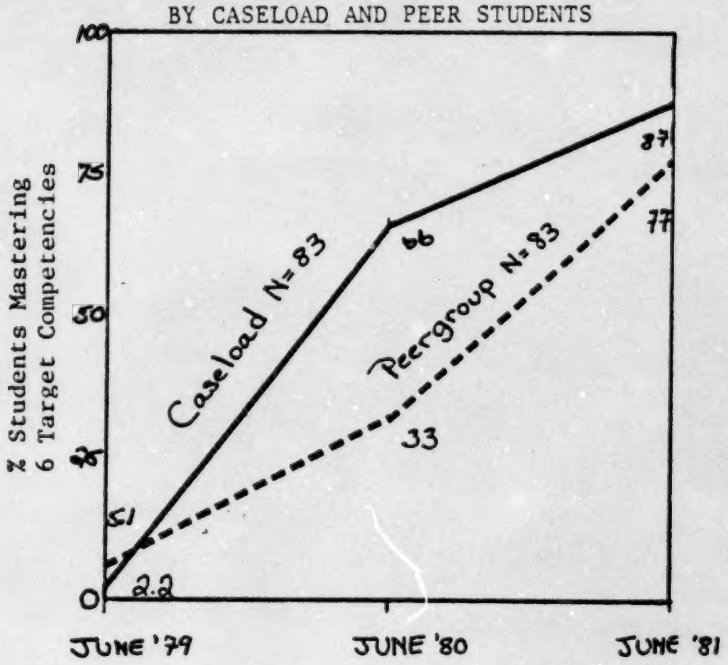
It is recommended that the monitoring system be maintained with a position funded by the district to insure quality control of the basic competency test information for all high school students.

The teaming of special educators and regular educators should continue with collaborative planning time built into their schedules. Consulting Teachers and the school district should continue their collaboration with the University of Vermont, especially in the areas of evaluation, mainstreaming of Level 4 students, and courses.

Finally, the information currently being gathered about the team taught PIWA classes should be organized to reveal the student and teacher effects of the team teaching, and this information should be shared with all interested parties.

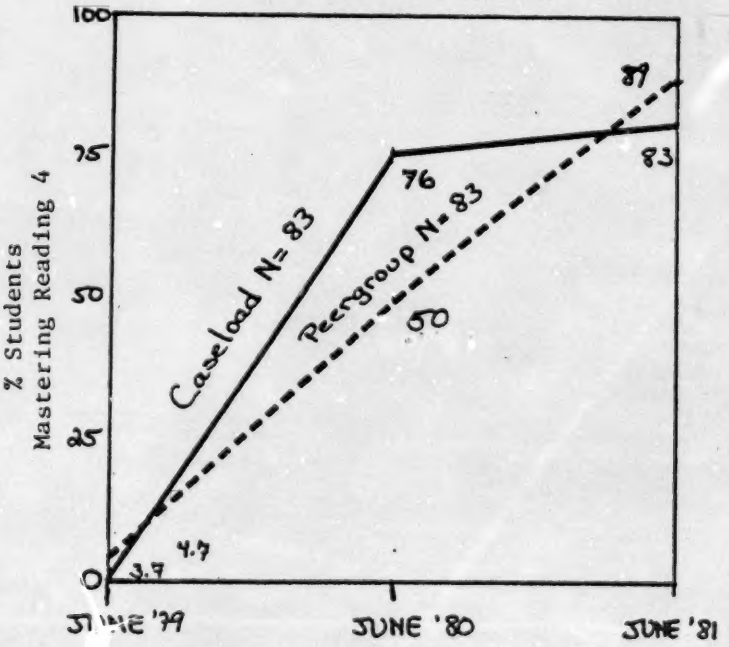
Figure 1
SUMMARY TABLE

MASTERY OF ALL TARGET COMPETENCIES
BY CASELOAD AND PEER STUDENTS



Years of Project Planning and Intervention

Figure 2
PERCENT OF CASELOAD AND PEER GROUP
STUDENTS MASTERING READING 4



Years of Project Planning and Intervention

Figure 3

PERCENT OF CASELOAD AND PEER GROUP
STUDENTS MASTERING READING 7

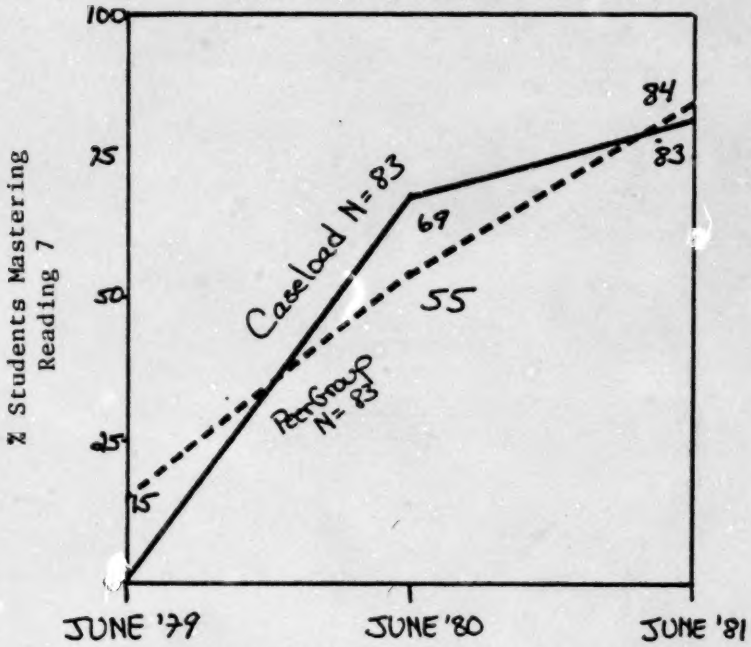


Figure 4

PERCENT OF CASELOAD AND PEER GROUP
STUDENTS MASTERING WRITING 7

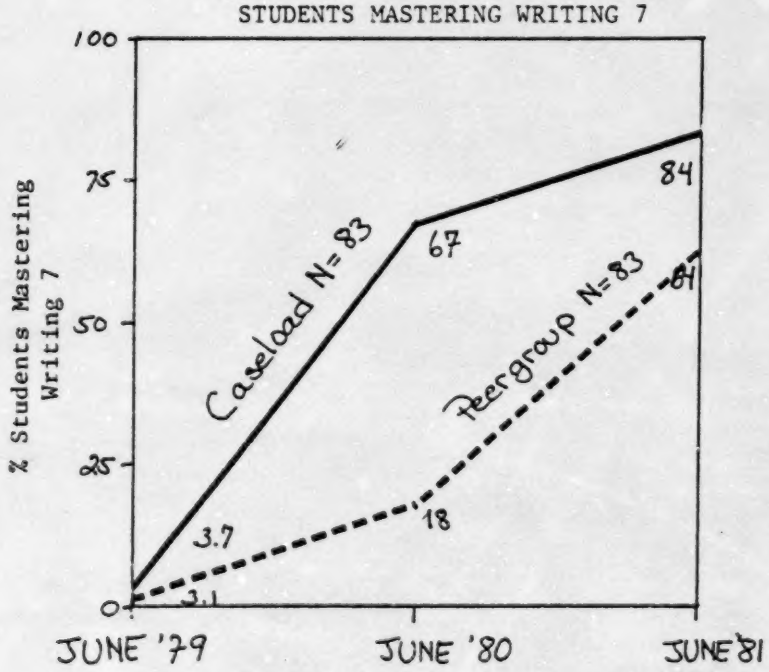
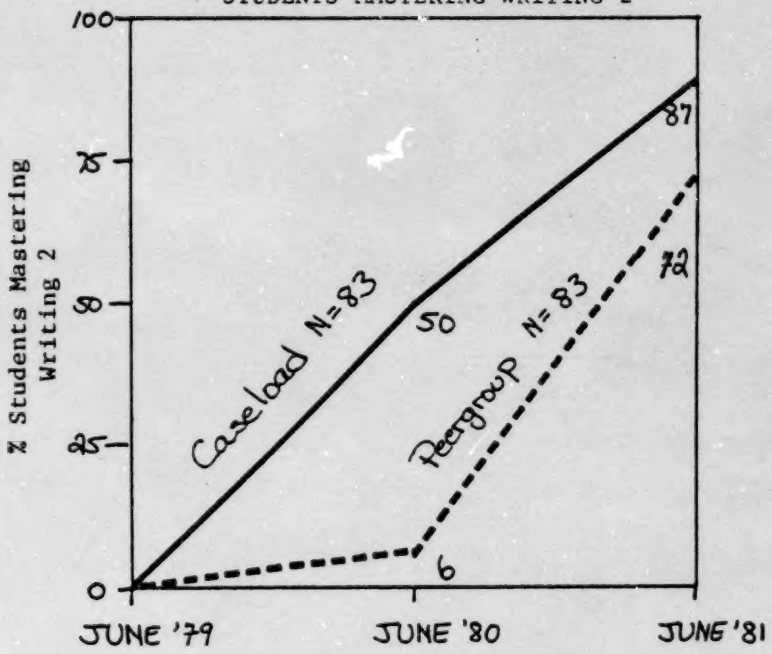


Figure 5

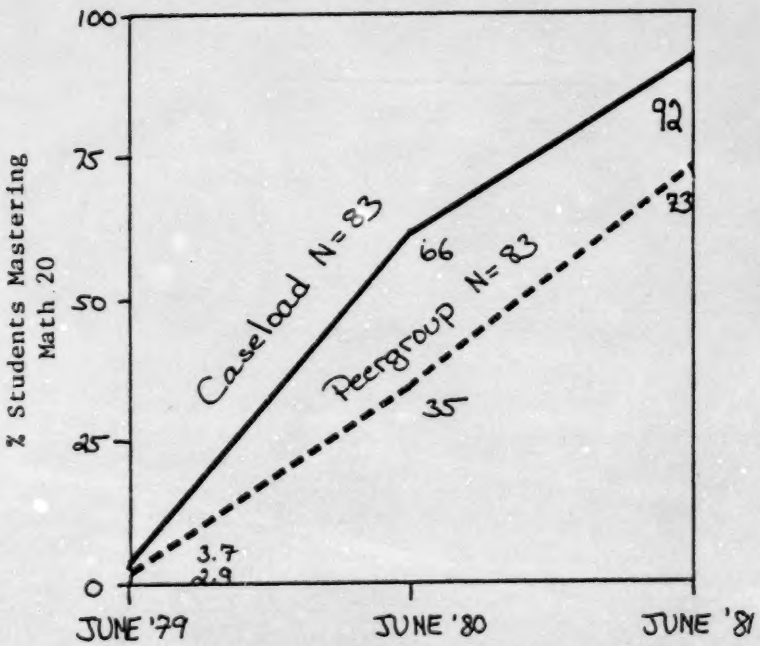
PERCENT OF CASELOAD AND PEER GROUP
STUDENTS MASTERING WRITING 2



Years of Project Planning and Intervention

Figure 6

PERCENT OF CASELOAD AND PEER GROUP
STUDENTS MASTERING MATH 20



Years of Project Planning and Intervention

Figure 7

PROGRESS ON GRADE POINT AVERAGE FOR CASELOAD AND PEER GROUP STUDENTS

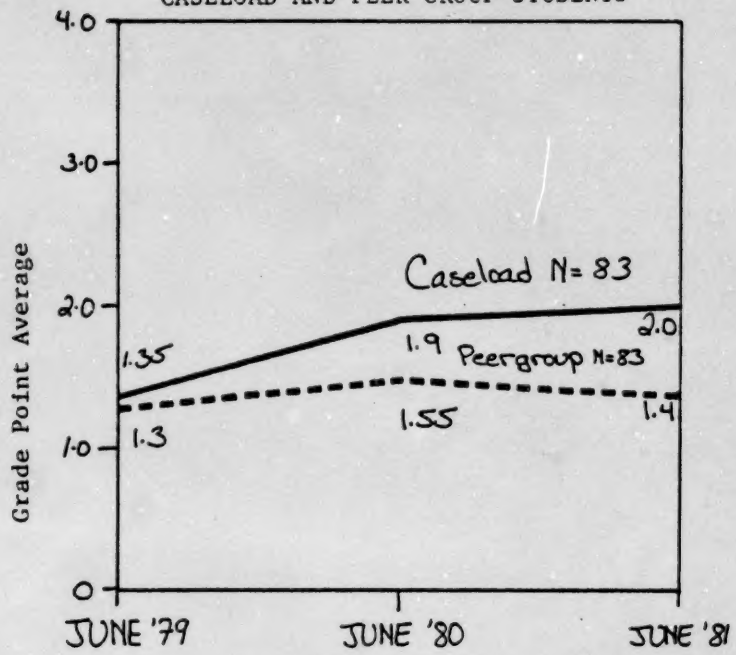


Figure 8

COMPARISON OF AVERAGE DAYS ABSENT FOR CASELOAD AND PEER GROUP STUDENTS

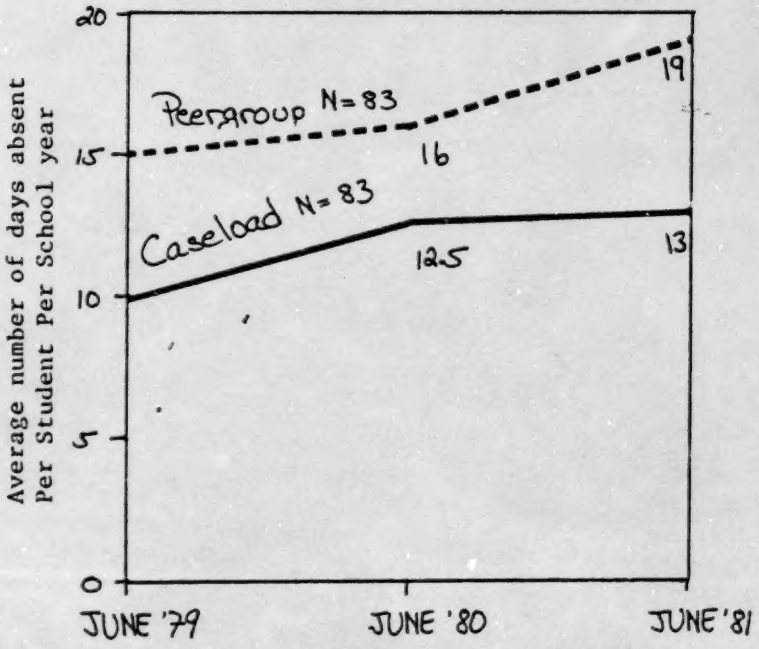
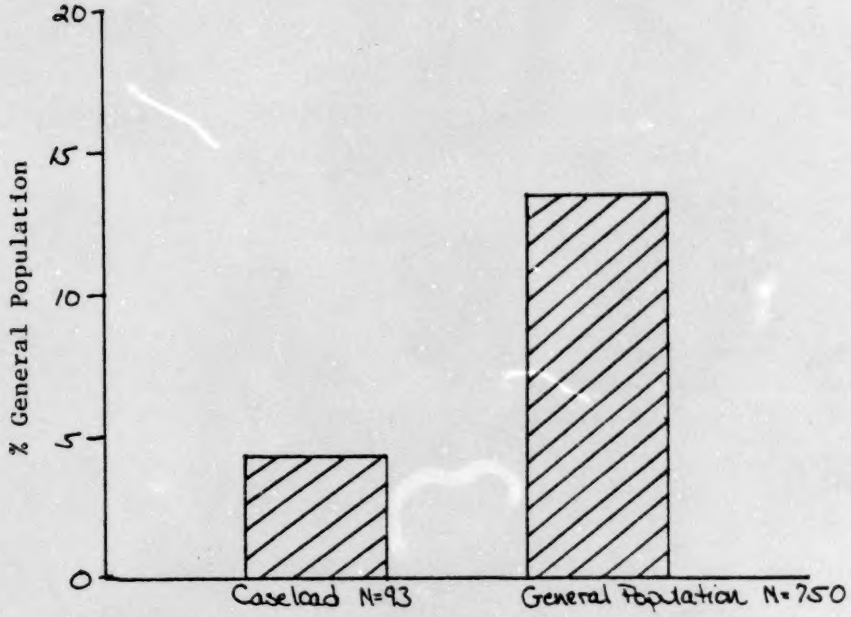


Figure 9

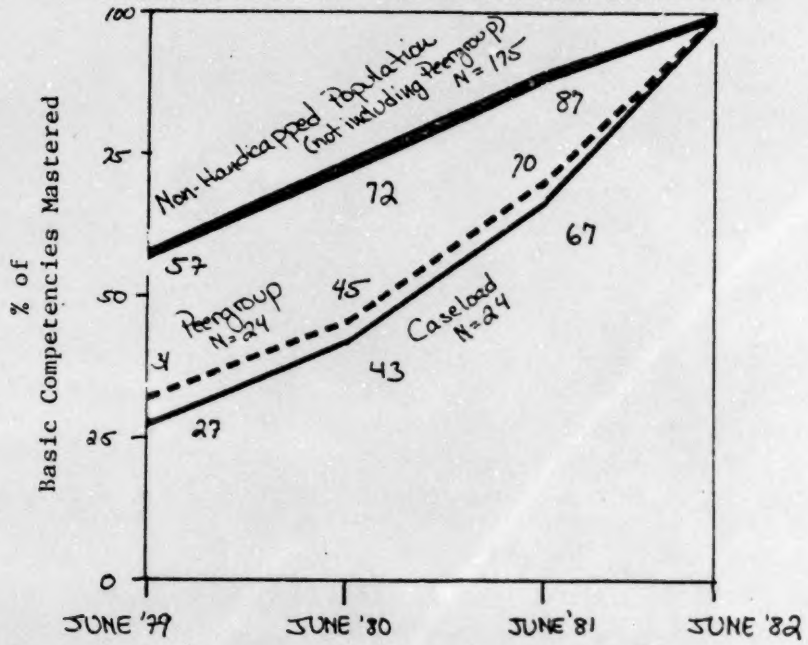
PERCENT DROPOUT*: CASELOAD VS
ESTIMATED GENERAL POPULATION
Years 1979-82



*Defined as % of population withdrawing from school without transfer to another school

Figure 10

CLASS OF 1982: RATES OF ACHIEVEMENT
ON ALL BASIC COMPETENCIES FOR
CASELOAD, PEER AND NON-HANDICAPPED POPULATIONS



Years of Project Planning and Intervention